

CLAIMS

What is claimed is:

- 1 1. A hosting service providing platform comprising;
2 an automated computer cluster, said automated computer cluster including a
3 control center; and
4 a plurality of hardware-independent cluster nodes, whereby said control center
5 coordinates the functions of said plurality of hardware-independent cluster nodes.
- 1 2. The platform as defined in Claim 1, wherein said plurality of hardware-
2 independent cluster nodes further comprises a specialized distributed file system.
- 1 3. The platform as defined in Claim 2, wherein said specialized distributed file
2 system is integrated and optimized for said automated computer cluster.
- 1 4. The platform as defined in Claim 2, wherein said specialized distributed file
2 system further comprises data for a plurality of virtual environments.

1 5. The platform as defined in Claim 4, wherein each of said plurality of virtual
2 environments further comprises:
3 software providing emulation of a full service computer with its own operating
4 system;
5 a unique administrative root user for each member of said plurality of virtual
6 environments;
7 a file system template and file tree; and
8 operating system parameter configuration;
9 and further wherein each of said plurality of virtual environments does not include
10 dedicated physical memory or any other hardware resources.

1 6. The platform as defined in Claim 4, wherein said specialized distributed file
2 system further comprises:
3 means for making file transactions from any file system changes made in at least
4 one of said plurality of virtual environments;
5 means for distributing said transactions to achieve the appropriate level of data
6 accessibility; and
7 means for permitting access to data from each member of said plurality of cluster
8 nodes.

1 7. A method for providing a hosting service providing platform comprising the
2 steps of:
3 automating a computer cluster, further including
4 establishing a control center; and
5 operating a plurality of hardware-independent cluster nodes, whereby said control
6 center coordinates the functions of said plurality of hardware-independent cluster nodes.

1 8. The method as defined in Claim 7, wherein the step of operating said plurality
2 of hardware-independent cluster nodes further includes the step of implementing a
3 specialized distributed file system, further wherein said specialized distributed file system
4 is integrated and optimized for each member of said plurality of hardware-independent
5 cluster nodes.

1 9. The method of Claim 8, wherein the step of operating a plurality of hardware-
2 independent cluster nodes further includes the step of operating a plurality of virtual
3 environments.

1 10. The method of Claim 9, wherein the step of operating said plurality of virtual
2 environments further includes the steps of:

3 installing software which emulates a full-service computer with its own operating
4 system;

5 establishing a unique administrative root user for each member of said plurality of
6 virtual environments;

7 establishing a file system template and file tree for each member of said plurality
8 of virtual environments;

9 implementing the operating system parameter configuration for each member of
10 said plurality of virtual environments;

11 and further wherein said step of operating said plurality of virtual environments does not
12 include the step of dedicating physical memory or any other hardware resources.

1 11. The method as defined in Claim 10, wherein the step of operating said
2 plurality of virtual environments further includes the steps of:

3 making file transactions from any changes to said file system made in at least one
4 of said plurality of virtual environments;

5 distributing said file transactions to achieve the appropriate level of data
6 accessibility; and

7 permitting access to data from each member of said plurality of cluster nodes.

1 12. The method as defined in Claim 10, wherein the step of operating each
2 member of said plurality of hardware-independent cluster nodes further includes the steps
3 of:
4 installing a base operating system and network connection;
5 providing access to the distributed file system containing the file system template
6 for each virtual environment within said cluster node;
7 accessing the resources of said cluster node; and
8 utilizing said cluster node for launching new virtual environments.

1 13. The method as defined in Claim 11, wherein the step of permitting access to
2 data from each of the plurality of virtual environments at said plurality of hardware-
3 independent cluster nodes further includes the step of:
4 restarting each virtual environment in a failed cluster node at another cluster node
5 having appropriate resources available.

1 14. A method for utilizing a hosting service providing platform in an operating
2 system comprising the steps of:
3 requesting a service in said operating system;
4 operating a virtual environment; and
5 utilizing a specialized distributed file system.

1 15. The method of Claim 14, wherein the step of operating said virtual
2 environment further includes the step of:
3 installing any application of said operating system.

1 16. The method of Claim 14, wherein the step of operating said virtual
2 environment further includes the step of:
3 configuring any application of said operating system.

1 17. The method of Claim 14, wherein the step of operating said virtual
2 environment further includes the step of:
3 launching any application of said operating system from said virtual environment.

1 18. The method of Claim 14, wherein the step of operating said virtual
2 environment further includes the step of:
3 repairing remotely any failed software configuration of said virtual environment.

- 1 19. The method of Claim 14, wherein the step of utilizing a specialized
2 distributed file system further includes the step of:
3 achieving a corresponding fault tolerance level.